

Abstract.

A method for the excitation of a plasma in which a gas is subjected to an electric field by means of a plurality of electrode systems. According to the invention at least two separate electrode systems 1,2 are used which are power supplied from separate generators with the same frequency, the voltage variations of the generators being shifted in phase relative to each other such that a voltage zero never occurs at the same time in two of the electrode systems, a kind of rest period also occurring, in which there is no significant potential difference between the phases. As a result a pulsating plasma is obtained, as the plasma is generated by the potential difference between the phases. When there is no significant potential difference between the phases, an added substance may interact with its own functionality.